REMARKS

Claims 27, 28, 32, 42, and 46 remain pending, and claims 33-41 and 47-52 are withdrawn from consideration for examination as drawn to a non-elected species.

In the Office Action, the Examiner rejected claims 27, 28, 32, 42, and 46 under 35 U.S.C. § 103(a) as anticipated by Metz et al. (U.S. Patent No. 5,666,293) in view of Yen (U.S. Patent No. 6,381,694). Applicants respectfully traverse this rejection, because a *prima facie* case of obviousness has not been made by the Examiner.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. M.P.E.P. § 2143, 8th ed., Revision of May 2004.

The present invention is in general directed to a downloading apparatus for a broadcast receiver. In particular, claim 27 recites a downloading apparatus for a broadcast receiver that includes, *inter alia*,

> a non-volatile random access memory (NVRAM), including a first domain, a second domain for storing a control program, a third domain for storing a downloading program for controlling a download procedure, wherein during the download procedure the control program stored in the

second domain is updated, and a fourth domain for storing a bootstrap program, wherein the bootstrap program controls an initial boot routine, wherein the first domain stores one of a version number of the control program stored in the second domain or a predetermined number indicating that the download procedure for updating the control program in the second domain was suspended due to a power failure or a signal transmission error, and wherein the initial boot routine includes checking whether or not a value stored in the first domain is the predetermined number and, when the value is the predetermined number, automatically updating the control program.

Metz et al. fails to teach or suggest each and every element of claim 27. First, as the Examiner correctly recognized, Metz et al. "does not specifically discuss checking whether the operating system is corrupt and then automatically updating the operating system." Office Action, page 4. In other words, Metz et al. fails to teach or suggest at least "wherein the initial boot routine includes checking whether or not a value stored in the first domain is the predetermined number and, when the value is the predetermined number, automatically updating the control program," as recited in claim 27.

Instead, the Examiner cites Yen for this purpose. Yen, however, fails to cure the deficiencies of Metz et al. First, Yen fails to teach or suggest at least "automatically updating the control program," as recited in claim 27. Applicants disagree with the Examiner's allegation that "Yen teaches a method that upon start-up the system detects if the operating system is corrupted and if so, may automatically download a new version from a network server, (col. 4, lines 1-29)." Yen only teaches that

(1) "[i]f an error is detected which would normally result in an operational failure, the computer branches to recovery software stored in the secondary volume. For example, . . . the recovery software can include an alternate startup application." Yen, col. 2, ll. 2-7.

(2) "If certain types of problems which prevent a normal startup are detected, the alternate startup application in the recovery volume is employed to boot the computer." Yen, col. 4, ll. 2-4.

(3) "The recovery software is located in a separate area of permanent storage . . . It could be located on a different device, such as flash memory or a network server." Yen, col. 4, ll. 17-26.

It is clear that Yen's "recovery software" is **NOT** a new version of the operating system, which the Examiner apparently contends corresponds to the claimed "control program." Therefore, contrary to the Examiner's allegation, Yen fails to teach or suggest "automatically updating the control program," as recited in claim 27.

Therefore, neither Metz et al. nor Yen, taken alone or in combination, teaches or suggests each element of claim 27. For these reasons, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claim 27 under 35 U.S.C. § 103(a).

Further, Metz et al. also fails to teach or suggest at least "a non-volatile random access memory . . . wherein the first domain stores one of a version number of the control program stored in the second domain or a predetermined number indicating that the download procedure for updating the control program in the second domain was

suspended due to a power failure or a signal transmission error," as recited in claim 27. In relevant portions of the disclosure, Metz et al. states that

(1) "[t]he DET microprocessor 105 then performs a checksum operation on the data file to determine if there are any errors in the received data (step S6). If the checksum result is not valid, . . . then the microprocessor 110 returns to step S5 and again extracts the relevant operating system file from the broadcast carousel." Metz et al., col. 37, ll. 44-52, and Fig. 9.

(2) "If the checksum result in step S6 is valid . . . , the microprocessor 110 copies the operating system . . . from volatile RAM 122 into the flash memory non-volatile RAM 121 (step S8)." Metz et al., col. 38, ll. 6-16.

(3) "Once the operating system is fully loaded . . . , then the microprocessor executes another checksum operation (step S9). If the checksum operation produces a 'valid' result indicating no errors are present in the operating system now loaded into flash memory 121, the operating system has been successfully loaded, and the microprocessor 110 therefore initiates a reboot routing (step S10)." Metz et al., col. 38, ll. 27-34, and Fig. 9.

The Examiner apparently contends that Metz et al.'s checksum result corresponds to Applicants' claimed "predetermined number." Office Action, page 3. However, Metz et al. only teaches generating the checksum result by performing a checksum procedure (S6 or S9), and does not teach or suggest storing the checksum result in a non-volatile memory. Moreover, because each time when Metz et al. determines "if there are any

errors in the received data" or if "errors are present in the operating system now loaded into flash memory 121," a checksum procedure (S6 or S9) is performed, and there is no reason to store the checksum result in a non-volatile memory. Therefore, Metz et al. fails to teach or suggest, and actually teaches away from, at least "a non-volatile random access memory . . . wherein the first domain stores one of a version number of the control program stored in the second domain or a predetermined number indicating that the download procedure for updating the control program in the second domain was suspended due to a power failure or a signal transmission error," as recited in claim 27.

Moreover, Yen also fails to teach or suggest at least "a non-volatile random access memory . . . wherein the first domain stores one of a version number of the control program stored in the second domain or a predetermined number indicating that the download procedure for updating the control program in the second domain was suspended due to a power failure or a signal transmission error," as recited in claim 27. Consequently, Yen also fails to teach or suggest at least "wherein the initial boot routine includes checking whether or not a value stored in the first domain is the predetermined number," as recited in claim 27.

In view of the above, Metz et al. and Yen, taken alone or in combination, fail to teach or suggest all the elements of claim 27. Moreover, there is no suggestion in the references to modify the structures disclosed therein to achieve the claimed combinations in claim 27. Therefore, claim 27 is patentable over Metz et al. and Yen.

Claims 28 and 32 depend from claim 27 and are also patentable over Metz et al. and Yen at least for the same reasons as claim 27.

In addition, claim 42 recites a method for downloading a control program that includes, *inter alia*,

> writing a predetermined value in a version domain of the non-volatile random access memory; . . . and restarting the downloading program stored in the non-volatile random access memory for recovering the control program when the examined version domain of the non-volatile random access memory includes the predetermined value.

For reasons similar to those set forth in the above, Metz et al. and Yen fail to teach or suggest at least these elements of claim 42. Moreover, there is no suggestion in the references to modify the structures disclosed therein to achieve the claimed combinations. Therefore, claim 42 is patentable over Metz et al. and Yen.

Claim 46 depends from claim 42 and is therefore also patentable over Metz et al. and Yen at least for the same reasons as claim 42.

In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims 27, 28, 32, 42, and 46.

If there is any fee due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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* With limited recognition under 37 C.F.R. § 10.9(b).